

Serial No. 10/632,352

Attorney Docket No. DKT91043H (3343-300)

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CENTRAL FAX CENTER****MAR 01 2007****II. Remarks**

Claims 108 through 138 remain pending in the application, with amendments to claims 116, 119, 125, 131, 134 and 135. Reconsideration and reexamination of these claims, in view of the following remarks, is requested.

*Drawing Objections*

In the office Action, the drawings were objected to under 37 C.F.R. 1.83(a) as not showing every feature in the claims. Specifically, the examiner refers to the clutch engagement decrease associated with a second predetermined speed difference (claims 108, 109, 110, 120, 132, and 136). It is respectfully submitted that this feature is shown in the drawings.

In performing the claimed method of the present invention, it first noted that the predetermined value may be a changing value and is not limited to a static value, since it may be based on the then existing operating conditions of the vehicle. See Specification, p. 4 ll. 12, 13, p. 5 ll.1-5, p.6 ll. 4-7, p. 33 ll. 23-27. These conditions may include, for example, the speed of the vehicle, identity of the overrunning shaft, steering angle and braking, or any combination of them. For example, to determine the predetermined value in an embodiment of the invention where many of these vehicle conditions are considered, the embodiment will operate by repeatedly cycling through the various loops and subroutines, as are depicted in Figs. 9b through 20. It is submitted that by repeatedly cycling through these loops, on one pass, a first

Serial No. 10/632,352

Attorney Docket No. DKT91043H (3343-300)

predetermined value may be determined and ramping up of engagement of the clutch performed, while on a subsequent pass (where operating conditions of the vehicle have changed) a second predetermined value is determined and ramping down of engagement of the clutch is performed. In particular the examiner's attention is directed to Figs. 10, 11a and 11b.

It is in these latter figures that the ramping up and ramping down of the engagement of the clutch is performed. For each cycle through the subroutine of Fig. 11b, the maximum allowable wheel speed delta (a predetermined value based on the then existing operating conditions) is looked up in step 254. Thereafter, depending if throttle angle compensation or steering angle compensation is enabled, the determination to raise or lower the current level to the clutch actuator is made.

Returning back to the subroutine of Fig. 11a, the clutch flag is ramped up or down, accordingly, at either step 244 or 278. On the next cycle of the method, it will be appreciated that the operating conditions of the vehicle may have changed. Thus, one or all of the previously mentioned factors (speed of the vehicle, identity of the overrunning shaft, steering angle and braking) may have changed. If the then existing conditions have changed, the value of the maximum allowable wheel speed delta determined in step 254 may be different (thus a second predetermined value is identified) and warrant a ramping down of the clutch engagement.

Additionally, step 274 in Fig. 11b specifically indicates and shows that the maximum wheel speed delta is changed according to the steering angle compensation value. Obviously, this results in a second predetermined value.

Serial No. 10/632,352

Attorney Docket No. DKT91043H (3343-300)

Based on the fact that the various loops, subroutines and steps of the illustrated method are cyclic and repeated during operation of the vehicle, and based on the fact that the operating conditions of the vehicle will change from one cycle to the next, it is submitted that first and second predetermined values are shown in the figures of the application. It is therefore believed that no new drawings are required and that the objection to the drawings should be removed.

*Rejections Under 35 U.S.C. § 112*

Claims 108 through 138 were rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. In particular, the examiner has indicated that the specification fails to teach use of a second predetermined value.

The remarks made above in response to the objection to the drawings are also applicable to the present rejection and are restated and incorporated by reference herein.

During operation of a vehicle, it is clear that the operating conditions of the vehicle continuously change. These conditions may include, as noted previously, the speed of the vehicle, identity of the overrunning shaft, steering angle and braking. In order to properly operate a vehicle according to the claimed invention, the then existing operating conditions of the vehicle may need to be determined. It is upon these then existing operating conditions that the predetermined value of the claims is based. See Specification, p. 4 ll. 12, 13, p. 5 ll.1-5, p.6 ll. 4-7, p. 33 ll. 23-27.

In evaluating the existing operating condition of the vehicle, the invention repeatedly cycles through the method and its various loops and subroutines. Knowing

Serial No. 10/632,352

Attorney Docket No. DKT91043H (3343-300)

that the invention may repeatedly cycle through its various loops and subroutines, it is clear and will be readily apparent to those skilled in the art that, during one pass, a first predetermined value will be determined and a ramping up of engagement of the clutch may be performed (if operating conditions so warrant). Knowing this, it is also clear and will be readily apparent to those skilled in the art that on a subsequent pass (where operating conditions of the vehicle have changed) a second predetermined value will be determined and, if conditions so warrant (which eventually they will), ramping down of engagement of the clutch will be performed. As previously noted, successive iterations through the methodology of Figs. 10, 11a and 11b illustrate this principle for one embodiment of the invention.

Since during each cycle through the loops the maximum allowable wheel speed delta (a predetermined value based on the then existing operating conditions) is determined in step 254, if operating conditions change from one cycle to the next, the maximum allowable wheel speed delta of that next iteration is liable to be different. This is particularly notable from Table II since various allowable overruns are specified for different wheel speeds in Section I, various minimum currents to the coil for the different throttle positions are specified in Section II, and various steering angle compensation values for different vehicle speeds are specified in Section III. See Specification pp. 39, 40. Thus, if throttle angle compensation or steering angle compensation is enabled, the determination to raise or lower the clutch engagement is made for one cycle and then returns to back to the subroutine of Fig. 11a, where the clutch engagement flag is ramped up or down, accordingly, at either step 244 or 278. On the next cycle, if the operating conditions of the vehicle may have changed, one or

Serial No. 10/632,352

Attorney Docket No. DKT91043H (3343-300)

all of the previously mentioned factors (speed of the vehicle, identity of the overrunning shaft, steering angle and braking) may have changed and the value of the maximum allowable wheel speed delta determined in step 254 may be different (a second predetermined value). Obviously, the then existing conditions will eventually warrant a ramping down of the clutch engagement. It should also be noted in this regard that step 274 (Fig. 11b) specifically indicates and shows that the maximum wheel speed delta is/may be changed according to the steering angle compensation value. Clearly, this too results in a new or second predetermined value.

Since the present invention is discussed as being cyclic, the applicable various loops, subroutines and steps are repeated during operation of the vehicle. Further, since the operating conditions of the vehicle will change from one cycle to the next, a subsequent iteration through the method will produce a second predetermined value upon an appropriate change of operating conditions. If conditions so demand, the ramping down of the clutch engagement will occur and be based on this second predetermined value. It is also recognized the first and second predetermined values may be the same or different depending on the vehicle operating conditions considered and the state of those operations.

It is also noted that claims 116, 119, 125 131, 134 and 135 have been amended. The amendment to claims 119, 131 and 134 is identical and was to remove language that is unnecessary and improperly limited the scope of the claim. The amendment to claims 116, 125 and 135 is identical and corrected a typographical error.

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Serial No. 10/632,352

MAR 01 2007

Attorney Docket No. DKT91043H (3343-300)

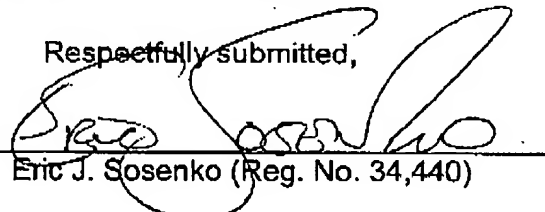
In view of the above comments, it is submitted that the present application described the claimed invention at the time the application was filed. Accordingly, the rejection under §112 should be withdrawn.

*Conclusion*

In view of the above remarks, Applicants respectfully submit that the objections and rejections should be withdrawn. Since no rejection of the claims has been made on prior art grounds, it is also submitted that the claims are now in allowable form. Allowance of these claims by the examiner is therefore requested. If the examiner believes telephone conversation would expedite this application, the examiner is invited to contact the undersigned attorney for Applicants at 734-302-6038.

MAR 1, 2007  
Date

Respectfully submitted,

  
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